SAFE, REFRESHING WATER STRAIGHT FROM THE TAP

We're happy to tell you that testing in 2012 showed your drinking water met or exceeded all state and federal drinking water standards. Bellevue's water is safe, great tasting, and refreshing—straight from the tap. Once again we are issuing this annual Water Quality Report in compliance with the Safe Drinking Water Act and State Department of Health Requirements. Inside you'll see where your water comes from, what's in your water, how Bellevue keeps it safe and makes sure it arrives safely, and other information. If you have questions about this report or your water, please call Bellevue's Water Quality staff at 425-452-6192.

CITY OF BELLEVUE 2013 DRINKING WATER QUALITY REPORT

Results from Testing in 2012

CITY OF BELLEVUE WASHINGTON

PWS ID WA5305575
June 2013

WHERE YOUR WATER COMES FROM

When you turn on the tap, you may wonder where your water comes from. Bellevue's high-quality water comes from the Cedar River and Tolt River watersheds in the Cascade Mountains. Bellevue purchases its water from Cascade Water Alliance, an organization that purchases water from Seattle and provides it to its members: Bellevue, Issaquah, Kirkland, Redmond, and Tukwila and the Sammamish Plateau and Skyway Water and Sewer Districts.

Cascade Water Alliance was formed in 1999 to provide you with water today and tomorrow. Each member has a voice in determining its own community's future by ensuring the availability of water. As an organization, Cascade also works closely with all water providers in the Central Puget Sound region to ensure every drop of available water is used before another supply is developed.

Currently Cascade gets its water from the Seattle system. In 2009 Cascade purchased Lake Tapps in east Pierce County as the newest water supply in the region in decades. The state issued Cascade the official water rights to develop a drinking water supply.

As a result of customers' wise use of water, responsible plumbing codes, and water-efficient appliances, we have enough water for the future, and Cascade likely won't develop Lake Tapps for decades. But it is there as a valuable resource for the region when needed.

MAKING SURE THIS REPORT REACHES OUR CUSTOMERS

The Environmental Protection Agency (EPA) has informed water providers that having this report available on the Web meets delivery requirements as long as customers are notified of this option and those who would like a paper copy can request one. Since most of our customers receive the report as an insert in *It's Your City*, we have decided to continue to provide it in this way (postage-free) rather than insert post cards and require customers to request a paper copy, which we would then have to mail. If you would like to provide feedback about the delivery method, please send an email to *Utilities@bellevuewa.gov* or call our Water Quality staff at 425-452-6192.

WHAT THE EPA WANTS YOU TO KNOW

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

WATER QUALITY MONITORING RESULTS FOR 2012

Your water is monitored and tested 365 days a year. After testing for close to 200 compounds, only a few were detected, and all were below the maximum level allowed by the EPA (see chart below). If you would like to see a list of all compounds your water was tested for in 2012, please call Water Quality at 425-452-6192 or visit the City's website at *www.bellevuewa.gov/utilities.htm*.

	EPA's allowable limits		Levels in Cedar Water		Levels in Tolt Water			
Detected Compounds and Units	**MCLG**	**MCL**	**Average**	**Range**	**Average**	**Range**	**Typical Sources**	**In Compliance**
Raw Water before treatment								
Total Organic Carbon ppm	NA	TT	0.7	0.4 - 1.1	1.2	1.1 to 1.4	Naturally present in the environment	Yes
Cryptosporidium* #100L	NA	NA	ND	ND	ND	ND to 2	Naturally present in the environment	Yes
Finished Water after treatment								
Turbidity NTU	NA	TT	0.3	0.2 to 2.3	0.06	0.04 to 0.38	Soil runoff	Yes
Fluoride ppm	4	4	0.8	.07 to 0.9	0.8	0.7 to 0.9	Water additive, which promotes strong teeth	Yes
Barium ppb	2000	2000	1.8	(one sample)	1.9	(one sample)	Erosion of natural deposits	Yes
Nitrate ppm	10	10	0.02	(one sample)	0.13	(one sample)	Erosion of natural deposits	Yes
Cadmium ppb	5	5	ND	(one sample)	0.35	(one sample)	Erosion of natural deposits	Yes
Total Trihalomethanes ppb	NA	80	Average = 30.1 Range = 13.9 - 48.5				By-products of drinking water chlorination	Yes
Haloacetic Acids (5) ppb	NA	60	Average = 25.4 Range = 12.5 - 38.8				By-products of drinking water chlorination	Yes
Chlorine ppm	MRDLG = 4	MRDL = 4	Average = 0.91 mg/L Range = ND – 1.65 mg/L				Water additive used to control microbes	Yes

*Cryptosporidium was not detected in any samples from the Cedar or Tolt rivers.

KEY TO ABBREVIATIONS IN CHART

MCLG: *Maximum Contaminant Level Goal* - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL: *Maximum Contaminant Level* - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRDL: *Maximum Residual Disinfectant Level* - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: *Maximum Residual Disinfectant Level Goal* - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

TT: *Treatment Technique* - A required process intended to reduce the level of a contaminant in drinking water.

NTU: *Nephelometric Turbidity Unit* - Turbidity is a measure of how clear the water looks. The turbidity MCL that applied to the Cedar supply in 2012 is 5 NTU, and for the Tolt it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2012 were below 0.3 NTU.

NA: *Not Applicable* **ND:** *Not Detected*

ppm: *1 part per million = 1 mg/L = 1 milligram per liter* **ppb:** *1 part per billion = 1 ug/L = 1 microgram per liter*

1 ppm = 1000 ppb

MAKING SURE YOUR WATER IS SAFE

To ensure your water is safe to drink, EPA and the Washington State Dept. of Health (WSDOH) prescribe regulations that limit the amount of contaminants in water provided by public water systems. The Food and Drug Administration and the Washington State Department of Agriculture regulations establish similar limits on bottled water.

As part of this process, the state assesses potential sources of contamination prior to treatment. WSDOH rates all surface drinking water supplies in Washington as having high susceptibility to potential contamination if not carefully protected. Extra protection can include such measures as watershed ownership, increased surveillance, increased sampling, and land use restrictions and prohibitions. The Tolt and Cedar watersheds in the Cascade Mountains are highly protected. Because no agricultural, industrial, or recreational activities are permitted, and no one is allowed to live there, there is little opportunity for contaminants to enter the water. However, there is some potential for natural sources of contamination such as viruses, bacteria, and protozoa from wildlife; inorganic contaminants, such as salts and metals, which are naturally occurring; and organic contaminants, which result from chlorine combining with naturally occurring organic matter. For more information on Source Water Protection, visit *www.doh.wa.gov/ehp/dw/default.htm.*

BELLEVUE'S MOST RECENT LEAD AND COPPER MONITORING RESULTS (2011)#

Parameter and Units	MCLG	Action Level+	2011 Results*	Homes Exceeding Action Level	Source
Lead, ppb	0	15	7	4 of 50	Corrosion of household plumbing systems
Copper, ppm	1.3	1.3	0.13	0 of 50	

* 90th Percentile: i.e. 90 percent of the samples were less than the values shown.
\+ The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
\# The City of Bellevue is scheduled to perform Lead and Copper sampling again in 2014. When samples exceed Action Levels, Water Quality staff offer advice to residents on ways to keep their water safe.

TREATING YOUR WATER FOR SAFETY

To improve water quality, drinking water from the Tolt supply is treated at a filtration and ozonation facility, and water from the Cedar supply is disinfected with ultra-violet technology. Fluoride is added to your water to prevent tooth decay, in accordance with a Seattle public vote in 1968. The concentration of fluoride was reduced in January, 2011 from 1 part per million to 0.8 part per million, the lowest concentration in the acceptable range defined by the WA State Department of Health. Chlorine is added to your water to prevent diseases such as cholera, giardiasis, and salmonellosis. Ozone and ultra-violet technology also destroys Cryptosporidium parvum, a disease-causing organism found in the natural environment. After treatment, your water is very safe to drink and contains very few contaminants. The few contaminants that are present are below the allowable limits (see chart on center panel).

REDUCING LEAD FROM PLUMBING FIXTURES

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Bellevue is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at *www.epa.gov/safewater/lead*. If you have concerns about lead in your water, please call Water Quality at 425-452-6192.

WHAT DOES BELLEVUE DO TO ENSURE YOUR WATER IS SAFE?

- Conducts water main flushing, sampling and results tracking, and reservoir inspections.
- Manages the Cross Connection Control/ Backflow Prevention Program.
- Assists customers with water quality issues in their homes.
- Monitors the changing water distribution and water quality regulations.
- Trains for water emergencies with other regional water providers.

FAST FACTS

Residential Population Served:

140,975

Bellevue's water system contains:

27 water reservoirs
22 pump stations
620 miles of water main pipe
40,702 water meters
5,863 fire hydrants

FREQUENTLY ASKED QUESTIONS

I saw a commercial vehicle connecting to a fire hydrant on my street. What was going on?

Commercial vehicles connecting to a City fire hydrant without permission may be taking water without paying and may also be creating a "cross connection" that can threaten drinking water quality. Commercial vehicles that go through an inspection and permitting process are only authorized to take water from BLUE fire hydrants you may have seen located around the City and should have a sticker posted on their vehicle showing the current year. If you see a commercial vehicle connected to a fire hydrant in your neighborhood that is not painted BLUE, please contact 425-452-7840.

Why is there a smell after I wash my clothes?

If you own a high-efficiency washing machine, it is probably your machine. High-efficiency machines are so air tight that water gets trapped in them between washes and bacteria grows and can smell. After a wash is complete, leave the washer door open for a few hours so moisture can escape. This should solve the problem.

Why is there a smell coming from my kitchen sink?

It's probably bacteria from food particles in your drain and not the water. Use cleanser to clean sink stoppers and the opening to your drain. Pour ½ to 1 cup of baking soda down each drain and wait 15 minutes. Then pour ½ cup of white vinegar down each drain. Cover drain with a rag. Wait a minute to let the fizz die down, then flush with hot water for about a minute.

Directions to my new dish washer are asking about water hardness. Is Bellevue's water hard or soft?

Some newer appliances have settings that are based on the "hardness" of the water supply. Bellevue's water has a hardness of 1.4 – 1.5 grains/gallon, which is very soft compared to other water in the country. Because soft water is easier to lather, you may not need to use as much soap when washing dishes or clothes.

Can my irrigation system contaminate my drinking water?

Yes, some piping connections can create the potential for contaminated water to backflow into your home's drinking water. An irrigation system, which can be exposed to dirty water, strong chemicals, animal wastes, and poison, to name a few, is one connection that requires a check valve known as a backflow assembly to make sure water can flow only in one direction. The City of Bellevue requires backflow assemblies to protect drinking water from these potential sources of contamination and also requires that equipment be tested annually to ensure it's working properly. We currently send letters to customers for more than 11,000 backflow assemblies throughout the City. If you have any connections, such as an irrigation system, fire sprinkler system, or lake water pumping system, but do not receive a reminder notice from the City, please contact Water Quality at 425-452-5208.

WATER CONSERVATION UPDATE

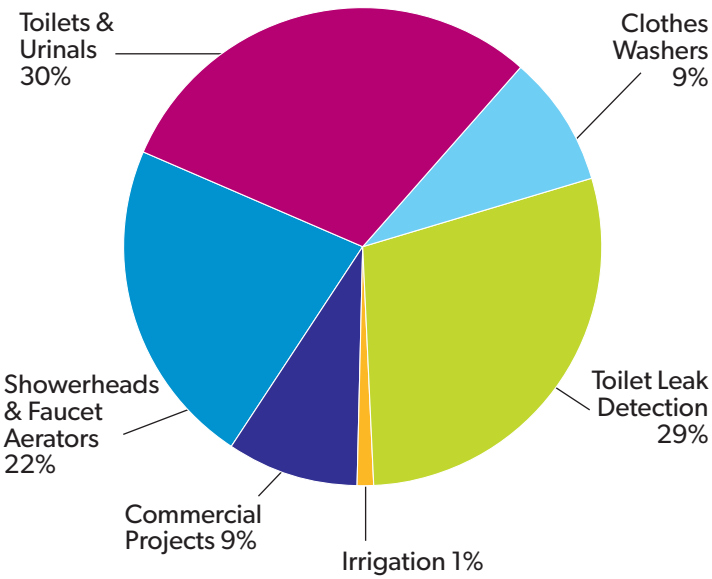
Water conservation is important to provide a safe, reliable supply of water for our community's needs today and in the future. Bellevue's water conservation goal is to save 355,000 gallons per day (gpd) from 2008 - 2013--an average of 59,000 gpd of new savings each year.

In 2012, Bellevue supplied 5.7 billion gallons of water to a population of 140,975, with workers, students, and visitors increasing the daytime population to 206,400. Bellevue's water system is fully metered. The City does its part to conserve by minimizing water loss caused by leaks throughout its distribution system. Distribution system leakage or water loss was 2.8 percent of total consumption in 2012, below the Washington State standard of 10 percent.

To encourage conservation, Bellevue offers water efficiency programs through its partnership with Cascade Water Alliance. Conservation programs seek to reduce indoor and outdoor water use by promoting high efficiency plumbing fixtures, appliances, and irrigation technologies, as well as leak detection and repair. Thanks to continuing community support and participation, these programs have been very successful. Since establishing the goal in 2008, Bellevue has saved 652,353 gpd. In 2012, residents, local businesses, property owners, and schools saved 85,900 gpd. (See the chart below.) Thank you for doing your part to conserve!

To learn more about conservation programs and what you can do to save water, visit Cascade Water Alliance at *www.cascadewater.org*

WATER SAVINGS 2008-2012



PLEASE KEEP WATER METERS AND FIRE HYDRANTS CLEAR

Is your water meter visible? Bellevue water meter readers strive to reach each meter quickly and safely, reading hundreds of meters each day. In addition to reading the meter, there are times when employees need to make repairs. This work can be difficult if vegetation or other items make it hard to access the meter.

Fire hydrants also need to be clear of vegetation and visible from the street. If a fire hydrant is on your property, make sure there is a three-foot clearance all the way around. When a fire breaks out, firefighters rely on being able to quickly locate and use fire hydrants. Your safety is of paramount concern to us. Please help us maintain access to this potentially life-saving device.

WATER SYSTEM UPGRADES

Although the 620 miles of underground water main in Bellevue are out of sight, it's critical to keep these pipes in top shape for high quality, dependable water. Bellevue is ahead of many cities in upgrading its system due to ongoing maintenance, capital planning, and financial policies. In 2012 we improved infrastructure by replacing over 17,000 linear feet of aging asbestos cement water main pipe with new ductile iron pipe.